

## **Implication of variation in aggressiveness of *Phytophthora infestans* (Mont.) de Bary isolates found in Kenya to potato production**

Wakahiu M.W.<sup>1</sup>, Kedera J.C.<sup>3</sup>, Lung'aho C.<sup>1</sup> and Olanya M.<sup>2</sup>

<sup>1</sup>National Potato Research, Centre, P.O. Box 338, Limuru

<sup>2</sup>International Potato Centre, P. O. Box 25711, Nairobi, Kenya

<sup>3</sup>Kenya Plant Health Inspectorate Services, P.O. Box 49592, Nairobi, Kenya

**Abstract.** A survey was carried out to determine the incidence and severity of late blight in four major growing potato districts. *Phytophthora infestans* isolates were found to have varying levels of aggressiveness as indicated by their reaction on tubers and detached leaves. The variability of ten different isolates of *P. infestans* was evaluated by their ability to cause disease on both detached leaf and tubers of different potato genotypes. Isolate 023 had the largest lesion diameter of 35.67mm on leaves of Kerr's Pink variety and this was significantly ( $P < 0.05$ ) higher than all the other lesion diameters recorded on other isolates. Isolate 032, with a lesion diameter of 13.33mm, was the only isolate regarded as virulent on the leaves of variety Kenya Sifa. There were no isolates regarded as virulent on variety Kenya Rutuku.

On tuber rot, isolate 008 was the most virulent with a diameter of 16.04mm. Isolate 035 was considered least virulent with a mean diameter of 10.04mm. Isolate 008 was the most virulent isolate with a diameter of 16.04mm.

Cultivation of some popular varieties like Kerr's Pink has become impossible, as the variety is highly susceptible to the disease due to the emergence of more aggressive strains. These developments also imply that the late blight management has to be broadened to include tubers reactions to *P. infestans* in order to avail farmers varieties that meet their requirements.